

WHAT IS CLAIMED IS:

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1. A data structure, comprising trigger definition information for a trigger defined on a table, wherein the trigger definition information comprises:
 - a status value indicative of whether the trigger definition is operative or inoperative;
 - a type value indicative of whether the trigger definition is self-referencing; and
 - at least one dependent object having a dependency relationship with the trigger definition.
 2. The data structure of claim 1, wherein the object is a table.
 3. The data structure of claim 1, wherein the at least one dependent object is one of a table, a physical file, a collection, a schema, a library, a view, a logical file, an index, a user-defined function, a user-defined type, an alias and a procedure.
 4. The data structure of claim 1, wherein the trigger definition information further comprises a trigger definition name and an SQL trigger statement area.
 5. The data structure of claim 1, wherein status value is changed from an operative setting to an inoperative setting if the object is modified and if the type value indicates that the trigger definition is self-referencing.
 6. The data structure of claim 1, wherein status value is changed from an operative setting to an inoperative setting if the at least one dependent object is modified.
 7. The data structure of claim 1, wherein the trigger definition information further comprises:
 - a CREATE TRIGGER statement containing the at least one dependent object; and
 - a dependent object area specifying a location of the at least one dependent object according to a dependent object name offset from a beginning of the CREATE TRIGGER statement, a dependent object name length, a dependent object library offset from the beginning of the CREATE TRIGGER statement and a dependent object library length.

8. The data structure of claim 1, wherein the trigger definition information further comprises:

a CREATE TRIGGER statement containing the at least one dependent object;
and
a dependent object area for the at least one dependent object.

9. The data structure of claim 8, wherein the dependent object area is a list containing the at least one dependent object.

10. The data structure of claim 8, wherein the dependent object area specifies a location of the at least one dependent object.

11. A method of maintaining integrity in a database comprising a plurality of triggers defined on at least one of a plurality of objects, comprising:

(a) receiving an I/O event affecting an object;
(b) determining whether a trigger defined on the object is self-referencing;
and
(c) if the trigger is self-referencing, making the trigger inoperative.

12. The method of claim 11, wherein (b) and (c) are repeated for each of a plurality of triggers defined on the object.

13. The method of claim 11, wherein the I/O operation is one of a rename operation, a move operation, a restore operation and any combination thereof.

14. The method of claim 11, wherein (b) comprises examining a value in a trigger definition entry associated with the object.

15. The method of claim 11, wherein (c) comprises changing a value in a trigger definition entry associated with the object.

16. The method of claim 11, wherein (b) comprises examining a first value in a trigger definition entry associated with the object and wherein (c) comprises changing a

second value in the trigger definition entry.

17. A method of maintaining integrity in a database comprising a plurality of triggers defined on at least one of a plurality of tables, comprising:

- (a) receiving an I/O event affecting an object;
- (b) determining whether the object has a dependency relationship with at least one trigger of the plurality of triggers;
- (c) if the object has a dependency relationship with at least one trigger, determining a table on which the at least one trigger is defined, wherein the table has trigger definition space;
- (d) locating a trigger definition entry of the at least one trigger within the trigger definition space; and
- (e) making the at least one trigger inoperative.

18. The method of claim 17, wherein (b) through (e) are repeated for each of the plurality of triggers having a dependency relationship with the object.

19. The method of claim 17, wherein receiving an I/O event comprises receiving one of a rename operation, a move operation and a restore operation.

20. The method of claim 17, wherein determining whether the object has a dependency relationship comprises querying a system catalog with at least one of a name for the object and a library for the object.

21. The method of claim 17, wherein determining whether the object has a dependency relationship comprises querying a system catalog with at least one of a name for the object and a library for the object and wherein the system catalog is populated with object dependency information contained in the trigger definition entry.

22. The method of claim 17, wherein determining the table on which the at least one trigger is defined comprises querying a system catalog with a trigger name and a trigger library.

23. The method of claim 17, wherein determining the table on which the at least one

trigger is defined comprises querying a first system catalog with a trigger name and a trigger library for the at least one trigger and wherein determining whether the object has a dependency relationship comprises querying a second system catalog with at least one of an object name and an object library for the object.

24. The method of claim 17, wherein making the at least one trigger inoperative comprises changing a value in the trigger definition entry.

25. A signal bearing medium containing a program which, when executed by at least one processor, performs a method of maintaining integrity in a database comprising a plurality of triggers defined on at least one of a plurality of tables, the method comprising:

- (a) receiving an I/O event affecting an object;
- (b) determining whether a trigger defined on the object is self-referencing;

and

- (c) if the trigger is self-referencing, making the trigger inoperative.

26. The signal bearing medium of claim 25, wherein (b) and (c) are repeated for each of a plurality of triggers defined on the object.

27. The signal bearing medium of claim 25, wherein the I/O operation is one of a rename operation, a move operation, a restore operation and any combination thereof.

28. The signal bearing medium of claim 25, wherein (b) comprises examining a value in a trigger definition entry associated with the object.

29. The signal bearing medium of claim 25, wherein (c) comprises changing a value in a trigger definition entry associated with the object.

30. The signal bearing medium of claim 25, wherein (b) comprises examining a first value in a trigger definition entry associated with the object and wherein (c) comprises changing a second value in the trigger definition entry.

31. A signal bearing medium containing a program which, when executed by at least

one processor, performs a method of maintaining integrity in a database comprising a plurality of triggers defined on at least one of a plurality of tables, the method comprising:

- (a) receiving an I/O event affecting an object;
- (b) determining whether the object has a dependency relationship with at least one trigger of the plurality of triggers;
- (c) if the object has a dependency relationship with at least one trigger, determining a table on which the at least one trigger is defined;
- (d) locating a trigger definition entry of the at least one trigger; and
- (e) making the at least one trigger inoperative.

32. The signal bearing medium of claim 31 wherein (b) through (e) are repeated for each of the plurality of triggers having a dependency relationship with the object.

33. The signal bearing medium of claim 31, wherein receiving an I/O event comprises receiving one of a rename operation, a move operation and a restore operation.

34. The signal bearing medium of claim 31, wherein determining whether the object has a dependency relationship comprises querying a system catalog with at least one of a name for the object and a library for the object.

35. The signal bearing medium of claim 31, wherein determining whether the object has a dependency relationship comprises querying a system catalog with at least one of a name for the object and a library for the object and wherein the system catalog is populated with object dependency information contained in the trigger definition entry.

36. The signal bearing medium of claim 31, wherein determining the table on which the at least one trigger is defined comprises querying a system catalog with a trigger name and a trigger library.

37. The signal bearing medium of claim 31, wherein determining the table on which the at least one trigger is defined comprises querying a first system catalog with a trigger name and a trigger library for the at least one trigger and wherein determining

whether the object has a dependency relationship comprises querying a second system catalog with at least one of an object name and an object library for the object.

38. The signal bearing medium of claim 31, wherein making the at least one trigger inoperative comprises changing a value in the trigger definition entry.

39. A signal bearing medium containing a database management program which, when executed by at least one processor, performs a method of maintaining integrity in a database comprising a plurality of triggers defined on at least one of a plurality of tables, the method comprising:

upon receiving a database command to affect a database object, determining whether at least one dependent entity is dependent on the database object; and

if the least one dependent entity is dependent on the database object and if the database command is a first command type, leaving the database object and the at least one dependent entity unaffected by the database command.

40. The signal bearing medium of claim 39, wherein determining whether at the least one dependent entity is dependent on the database object comprises accessing a system catalog.

41. The signal bearing medium of claim 39, further comprising if the at least one dependent entity is not dependent on the database object and if the database command is the first command type, affecting the database object according to the database command.

42. The signal bearing medium of claim 39, wherein the at least one dependent entity is a trigger.

43. The signal bearing medium of claim 39, wherein the at least one dependent entity comprises at least one of a trigger, a view and a constraint.

44. The signal bearing medium of claim 39, wherein the database command is one of a system command and an SQL command.

45. The signal bearing medium of claim 39, wherein the first command type is a RESTRICT command.

46. The signal bearing medium of claim 38, further comprising if the least one dependent entity is dependent on the database object and if the database command is a second command type, affecting the database object according to the database command and dropping the at least one dependent entity.

47. The signal bearing medium of claim 46, wherein the second command type is a CASCADE command.

48. The signal bearing medium of claim 39, further comprising if the least one dependent entity is dependent on the database object and if the database command is a third command type, affecting the database object according to the database command and leaving the at least one dependent entity unaffected.

49. The signal bearing medium of claim 48, wherein the third command type is a DEFAULT CASCADE command.

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